



TOWN COUNCIL – AGENDA REQUEST FORM

THIS FORM WILL BECOME PART OF THE BACKGROUND INFORMATION USED BY THE COUNCIL AND PUBLIC

Please submit Agenda Request Form, **including back up information, 8 days prior** to the requested meeting date. **Public Hearing requests must be submitted 20 days prior to the requested meeting date to meet publication deadlines** (exceptions may be authorized by the Town Manager, Chairman/Vice Chair).

MEETING INFORMATION

Date Submitted: August 29, 2016

Date of Meeting: September 22, 2016

Submitted by: James E. Taylor

Time Required:

Department: Public Works/Wastewater

Background Info. Supplied: Yes ☒ No ☐

Speakers: Jim Taylor

CATEGORY OF BUSINESS (PLEASE PLACE AN "X" IN THE APPROPRIATE BOX)

Appointment:	<input type="checkbox"/>	Recognition/Resignation/Retirement:	<input type="checkbox"/>
Public Hearing:	<input type="checkbox"/>	Old Business:	<input type="checkbox"/>
New Business:	<input checked="" type="checkbox"/>	Consent Agenda:	<input type="checkbox"/>
Nonpublic:	<input type="checkbox"/>	Other:	<input type="checkbox"/>

TITLE OF ITEM

Request to create a new position of Assistant Maintenance Manager in the Wastewater Division of Public Works

DESCRIPTION OF ITEM

The wastewater treatment facility has evolved into a highly complex system of sophisticated controls and equipment. This position fills a need to repair and maintain the equipment, provide coverage in the absence of the Maintenance Manager, provide training to staff, and potential for promotion to the Maintenance Manager position.

REFERENCE (IF KNOWN)

RSA:	Warrant Article:
Charter Article:	Town Meeting:
Other:	N/A: XX

EQUIPMENT REQUIRED (PLEASE PLACE AN "X" IN THE APPROPRIATE BOX)

Projector:	<input type="checkbox"/>	Grant Requirements:	<input type="checkbox"/>
Easel:	<input type="checkbox"/>	Joint Meeting:	<input type="checkbox"/>
Special Seating:	<input type="checkbox"/>	Other:	<input type="checkbox"/>
Laptop:	<input type="checkbox"/>	None:	<input checked="" type="checkbox"/>

CONTACT INFORMATION

Name: James E. Taylor

Address: 36 Mast Rd

Phone Number: 420-1620

Email:

APPROVAL

Town Manager: Yes ☐ No ☐

Chair/Vice Chair: Yes ☐ No ☐

Hold for Meeting Date:



TOWN OF MERRIMACK, NH PUBLIC WORKS DEPARTMENT WASTEWATER TREATMENT FACILITY

36 MAST ROAD – P.O. BOX 235 – MERRIMACK, NH 03054
PHONE: 603-883-8196 – FAX: 603-886-1513 – WWW.MERRIMACKNH.GOV

MEMORANDUM

To: Kyle Fox
Public Works Director

From: James E. Taylor
Assistant Public Works Director/Wastewater

Date: September 6, 2016

Re: Assistant Maintenance Manager Position Justification

EXECUTIVE SUMMARY:

- **Fills a need for a highly skilled position based on today's complex equipment**
- **Does not add staff-Mechanic II position would remain vacant**
- **Potential promotion to a management level position (Maintenance Manager)**
- **Potential to hold onto this employee long term which gives us a return on investment (training, etc.)**
- **Fills in for Maintenance Manager as needed**
- **Provides training to existing maintenance staff**
- **A vacancy has been created due to a Mechanic II transferring to the Equipment Maintenance Division of Public Works**
- **Recommend Labor Grade 13 with a salary range of \$21.36-\$30.33**
- **Current open position is funded at \$22.45**

The Assistant Maintenance Manager is expected to possess a high level of skill in understanding and repairing pumps, motors, blowers, chemical feed systems, vehicle repair and knowledge of computerized control systems to include programming language (AB ladder logic) and development of screens for SCADA or the ability to learn those systems. In addition, this individual must be able to provide training to the Mechanic II's in repairs and system operations as well as provide supervision in the absence of the Maintenance Manager to include ordering parts for repairs of equipment. At a minimum, we would expect an associate's degree in a related field or combination of trade school and work experience.

BACKGROUND:

The wastewater treatment facility has made continuous improvements over the last 46 years to include new equipment and processes as well as replacement of original equipment with modern, energy efficient pumps, blowers, and controls. A major difference between today's equipment and those of the past is in the control systems. Controls today are computer based logic controllers tied to an overall software system of monitoring, alarming, and control i.e. SCADA. This system is the key component that allowed us to go to a one shift operation from



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three shifts, at a savings of five positions and over \$300,000 annually. This has been done through remote alarming and telemetry software that can then page an on call employee any after hour's issues. Original plant staffing was 28 and we are currently at 21 employees.

CURRENT MAINTENANCE STAFFING:

The wastewater division has a staff of five Mechanic II's and one Maintenance Manager. In general, work is assigned in teams of two leaving one mechanic to assist with preventative maintenance, daily rounds of the pumping stations, of which we have nine, and assisting the other teams as needed. The current staffing skill level is such that we have two relatively "green" employees that will need a lot of support and training, one intermediate skill level employee, and one highly skilled mechanic, well versed in process equipment maintenance as well as vehicle repair. The Maintenance Manager is highly skilled as well, and can provide direction and support to his staff.

HISTORICAL STAFFING ISSUES

There has been a threefold problem that has been ongoing for many years:

- 1) The shrinking employee pool of talented, do it all mechanics that are well versed in heavy equipment repair.
- 2) The pay grades have not kept up with the surrounding communities of Nashua and Manchester (our direct competitors).
- 3) Losing staff to the Nashua Wastewater Treatment Facility

For the last five years when we have had mechanic openings, the applicants have mostly had automotive experience, but very little experience in the fields of welding, plumbing, HVAC, pump rebuilding, and electronics and electrical systems that are at the center of our maintenance activities.

The pay grades have fallen behind such that the positions are not as attractive as they once were. For example, our top mechanic who has 30 plus years' experience is currently earning \$24.65/hour. The City of Nashua starting pay for a mechanic of similar skill level is over \$26/hour. Several employees have left our employment for Nashua wastewater, and one returned to his former employer.

In the next 3 to 5 years our Maintenance Manager and senior Mechanic II will be retiring which means losing a combined 60 years of knowledge and experience. We have been proactive in capturing some of this knowledge in our asset management database, but the troubleshooting and critical thinking skills are the hardest to replace. The successful candidate would then be eligible to apply for the Maintenance Manager position when the Maintenance Manager retires, creating a smooth transition.



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TRAINING

Investment in time and money for training mechanics is significant. From the first day in which we provide safety orientation training to ongoing on the job training as well as specific classes and seminars we build a strong foundation from which the employees can then benefit the Town in the proper maintenance of the treatment facility that helps to maintain a level of service that the sewer users expect as well as meeting our EPA and NHDES permit requirements to institute proper operations and maintenance procedures at all times. Some of the training provided is as follows:

- Safety classes both in house and outside in the classroom to include confined space, lockout/tagout, PPE, hearing protection, asbestos awareness, etc.
- Pump rebuilding and theory of operations
- General wastewater treatment classes
- Electrical safety and repairs
- Pump Station operation and maintenance
- Sewer line installation and proper maintenance

SALARY

To get a better sense of an appropriate salary range, I contacted the cities of Concord, Manchester, and Nashua that have facilities of similar complexity to our own, all of which are Grade IV facilities. NHDES ranks facilities from Grade I to Grade IV based on process equipment, flow, and community served.

Concord:

Utility Technician: \$19.13-\$27.71. HS education required, not as technically advanced.

Nashua:

Mechanic Technician III: \$23.83-\$30.98. Similar skill level required to our Mechanic II and does include supervisory responsibilities

Manchester:

Mechanic: \$20.52-\$31.05, similar skill level to our Mechanic II.

As a non-union position, Labor Grade 13 of the Personnel Policy would be an appropriate fit with a salary range of \$21.36 to \$30.33 per hour and would complement the communities pay grades listed above.



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Our highest paid Mechanic II is currently paid \$24.64/hr. At the end of the newly approved AFSCME 2986 contract he will be earning \$27.19/hr.

WHY NOW?

With the transfer of a Mechanic II to the Equipment Maintenance Division of Public Works, we have an open position allowing the creation of a new Assistant Maintenance Manager nonunion position without adding staff.

ASSISTANT MAINTENANCE MANAGER/SEWER DIVISION

JOB SUMMARY

GENERAL DUTIES:

This is highly skilled work at the master level in the maintenance and repair of a wide variety of complex mechanical machinery, SCADA, electronic control systems and equipment. The Assistant Maintenance Manager works under the supervision of the Maintenance Manager, Sewer Division. The Assistant Maintenance Manager will supervise work in the absence of the Maintenance Manager and organize and direct day to day activities.

DISTINGUISHING FEATURES OF THE CLASS:

Employees in this class perform highly skilled tasks in the preventive maintenance and repair of pumps, pneumatic controls, compressors, electric motors, and valves and controls. In addition, the Assistant Maintenance Manager organizes and directs work activities, orders parts and equipment, and schedules daily work activities in the absence of the Maintenance Manager, and updates and installs industrial control software.

EXAMPLES OF DUTIES

(Any one position may not include all of the duties listed, nor do the listed examples include all duties, which may be found in positions of this class.)

1. Makes mechanical repairs to pumps, pneumatic controls, and compressors; lubricates equipment and checks for malfunctions.
2. Diagnoses issues with complex control equipment and designs and establishes new software control screens for process equipment
3. Replaces packing in pumps and valves, adjusts and cleans bar screens, comminutor and wier plates.
4. Cleans out pipes and performs other plumbing and pipefitting tasks as required.
5. Uses gas and/or arc welding equipment to heat, cut, braze, or weld
6. Performs minor electrical repairs as required; troubleshoots complex computer control systems to include programming PLC's and the implementation of programming changes to enhance existing and new process equipment. Ability to use and understand SCADA control systems.
7. Installs and sets up new equipment.

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8. Assists in keeping maintenance records to assure proper performance of maintenance work or repairs. Maintains Viewworks data base and generates reports to assist the Maintenance Manager in budget and CIP development.
9. Performs maintenance and repair tasks on building, structures, equipment and grounds.
10. Plans work, directs, and supervises Mechanic I and II's on a daily basis and in the absence Maintenance Manager.
11. Orders parts and supplies as needed and within budget parameters and maintains an inventory of spare parts.

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KNOWLEDGE, SKILLS AND ABILITIES REQUIRED

Thorough knowledge of standard practices, methods, tools and materials of the electrical and mechanical trades; thorough knowledge of the principles of operation and of the occupational hazards connected with general maintenance operations and ability to observe and enforce SAFETY PRECAUTIONS; ability to understand and carry out complex oral and written instructions; skilled in the use and care of hand and machine tools; mechanical aptitude, etc. The A-Master-Mechanic Assistant Maintenance Manager will be required to supervise, direct, and plan daily work activities in the absence of the Maintenance Manager as well as order and specify parts as needed.

MINIMUM REQUIREMENTS

Associates degree or trade school diploma. Three ~~years experience~~ years' experience in the operation and maintenance of heavy-duty equipment; ~~possession of a valid Commercial Drivers License (CDL-B with Air Brakes endorsement)~~ OR any equivalent education and experience that demonstrates the possession of the required knowledge, skills, and abilities. ~~In addition, an Assistant Maintenance Manager will be required to have management level experience of 3 years or more.~~

Note: this job description is intended to be indicative and not specific.

COGNITIVE AND SENSORY REQUIREMENTS:

Talking: Necessary for communicating with others.
Hearing: Necessary for taking instructions and receiving information.
Sight: Necessary for doing job effectively and correctly.

DURING AN 8 HOUR DAY, EMPLOYEE IS REQUIRED TO:

Consecutive Hours

Sit 1 2 3 4 5 6 7 8

Stand 1 2 3 4 5 6 7 8

Walk 1 2 3 4 5 6 7 8

Total Hours

Sit 1 2 3 4 5 6 7 8

Stand 1 2 3 4 5 6 7 8

Walk 1 2 3 4 5 6 7 8

ENVIRONMENT: Inside: 50% Outside: 50 %

EQUIPMENT USED: (ie – computer, phone, fax, jackhammer, backhoe, various hand tools, etc)

Heavy Equipment – motorized, various hand tools,

LICENSURE/CERTIFICATION REQUIREMENTS:

~~Valid CDL-B (Commercial Drivers License) with Air Brakes and Tank endorsements.~~

OTHER TRAINING, SKILLS AND EXPERIENCE REQUIREMENTS:

HS Diploma or GED. Three years experience in the operation and maintenance of heavy duty equipment; ~~possession of a valid Commercial Drivers License (CDL-B with Air Brakes endorsement)~~ OR any equivalent education and experience that demonstrates the possession of the required knowledge, skills, and abilities.

Specific Vocational Preparation Requirement(s):

This refers to how much prior experience a person needs before being able to do the job.

- ☐ 1. Short demonstration only.
- ☐ 2. Any beyond short demonstration up to and including 30 days.
- ☐ 3. 30-90 days.
- ☐ 4. 91-180 days.
- ☒ 5. 181 days to 1 year.
- ☐ 6. 1 to 2 years.
- ☒ 7. 2 to 4 years.
- ☐ 8. 4-10 years.
- ☐ 9. Over 10 years.

DEFINITIONS OF DURATION OF PHYSICAL ACTIVITIES

<i>Rarely:</i>	<i>Activity exists up to 1/8 of the time on the job.</i>
<i>Occasionally:</i>	<i>Activity exists up to 1/3 of the time on the job.</i>
<i>Frequently:</i>	<i>Activity exists up to 2/3 of the time on the job.</i>
<i>Constantly:</i>	<i>Activity exists over 2/3 of the time on the job.</i>

CONTROLS AND EQUIPMENT:

HAND MANIPULATION

Grasping: Frequently Required
 Handling: Frequently Required
 Torquing: Frequently Required
 Fingering: Frequently Required

PHYSICAL ACTIVITY REQUIREMENTS

PRIMARY PHYSICAL REQUIREMENTS

LIFT up to 10 lbs.: Frequently required
 LIFT 11 to 25 lbs.: Occasionally required
 LIFT 26 to 50 lbs.: Rarely required
 LIFT over 50 lbs.: Rarely required

CARRY up to 10 lbs.: Frequently required
 CARRY 11 to 25 lbs.: Occasionally required
 CARRY 26 to 50 lbs.: Rarely required
 CARRY over 50 lbs.: Rarely required

REACH above shoulder height: Occasionally required
 REACH at shoulder height: Frequently required
 REACH below shoulder height: Occasionally required

PUSH/PULL: rarely required

OTHER PHYSICAL CONSIDERATIONS

Twisting: Occasionally Required
 Bending: Occasionally Required
 Crawling: Occasionally Required
 Squatting: Occasionally Required
 Kneeling: Occasionally Required
 Crouching: Occasionally Required

Climbing: Occasionally Required
Balancing: Occasionally Required
WORK SURFACE(S)

Uneven surfaces in wastewater environment, construction sites, landfill, paved and unpaved roads, loose sand and dirt surfaces, outdoor winter condition surfaces.